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ASSESSMENT OF REAP-UPWARD BOUND.

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THE IMPACT OF AN UPWARD BOUND (UB) PROGRAM ON THE ATTITUDES, MOTIVATION, AND ACADEMIC ACHIEVEMENT OF DISADVANTAGED STUDENTS WITH COLLEGE POTENTIAL IS EVALUATED. THE PROGRAM IS ONE OF THE 21 UB PROGRAMS RANDOMLY SELECTED FOR INTENSIVE STUDY. AT RUTGERS UB STUDENTS' ATTITUDES AND MOTIVATION TOWARD COLLEGE GOALS, SELF-EVALUATION AND SELF-ESTEEM, CONTROL AND RESPONSIBILITY, INTERPERSONAL UNDERSTANDING, AND PERCEPTION OF FEELINGS OF ALIENATION INCREASED DURING THE SUMMER PHASES OF THE PROGRAM. HOWEVER, FEELINGS ABOUT THE IMPORTANCE AND POSSIBILITY OF ATTENDING COLLEGE DECREASED DURING THE ACADEMIC YEAR. NO SIGNIFICANT POSITIVE CHANGE WAS FOUND IN STUDENTS' ORIENTATION TOWARDS THE FUTURE DURING EITHER PHASE OF THE PROGRAM. STUDENTS RANKED OUTSTANDING PROGRAM CHARACTERISTICS AS--SENSITIVITY TO INDIVIDUALS, ENCOURAGEMENT OF STUDENT AUTONOMY, SUPPORT OF SELF-CONCEPT, GROUP HARMONY, AND FLEXIBILITY IN DEALING WITH PROGRAM PROBLEMS. THE ACADEMIC ACHIEVEMENT OF THE STUDENTS DURING THE ACADEMIC YEAR FOLLOWING THEIR SUMMER EXPERIENCE WAS POSITIVE AND GREATER THAN THE NATIONAL PATTERN FOR UB STUDENTS. THE PROGRAM WAS CONSIDERED "APPROPRIATE AND EFFECTIVE" FOR ITS STUDENTS. THE STUDENTS' BACKGROUND CHARACTERISTICS ARE EXAMINED IN THE REPORT. (AF)

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RUTGERS-THE STATE UNIVERSITY

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RUTGERS EDUCATIONAL ACTION PROGRAMS

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- M. Lang

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INTRODUCTION

The UPWARD BOUND Program at Rutgers-The State University is one of two hundred fourteen (214) UPWARD BOUND programs throughout the United States and its possessions and one of the twenty one (21) target programs randomly selected for intensive study (Hunt and Hardt, 1967).

The national project was originally conceived in order to increase the opportunities for college attendance among high school youth from lower income families. Two principal criteria were to be met in the selection of a student: he must meet the poverty criterion established by the Office of Economic Opportunity, and he should be a youngster with the potential to benefit from a novel educational experience even though he may have performed poorly in previous school work. The National UPWARD BOUND Guidelines states that its purpose is to remedy poor preparation and motivation in secondary school youngsters and to generate the skills and purposefulness necessary for these students, from low income backgrounds, to achieve success in a college environment.

How this above stated charge might be fulfilled is left to the discretion of individual programs since no one "right way" is currently known or agreed upon. Therefore, in order to characterize UPWARD BOUND students and to assess the impact of programs upon them a variety of measures and instruments were used with target programs. Although the range of measures used nationally is greater than the purposes of any individual program it may still be useful to describe how the students, in Rutgers Educational Action Programs UPWARD BOUND (REAP-UB) at Rutgers-The State University, changed in relation to each measure.

Parameters, and in some cases the variances of these measures, for target programs together with national profiles of biographical characteristics are reported in the studies of the Yough Development Center, Syracuse University (Hunt and Hardt 1966, 1967).*

This report will, therefore, evaluate the impact of both the Summer 1966-67 and the Academic Year Phase Program at Rutgers-The State University on the attitudes, motivations and academic achievements of students enrolled in the year-round program.

In order to more clearly understand the students in REAP-UB, biographical data on their family and educational background were collected.

Selected Biographical Characteristics

The responses, based on the self reports of students, are summarized for several characteristics.

The percentages reported for REAP-UB include all the students in the program (N=136). Percentages for the National UPWARD BOUND are based on a ten percent random sample of 18,530 UPWARD BOUND students (N=1853) responding to a four page biographical questionnaire. The comparisons for typical U.S. High School students are reported in Project Talent publications, University of Pittsburg, The American High School Student and Studies of a Complete Age Group - Age 15.

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*The National characterization of UPWARD BOUND was conducted by the Syracuse University Youth Development Center under a contract with Educational Associates Inc., Washington, D. C., consultants to the Office of Economic Opportunity.

Educational

TABLE 1

How Many Students Attend Your High School?

N	REAP-UB %	Nat. UB %
Less than 100	0	1
100 - 299	0	7
300 - 499	2	11
500 - 999	10	23
More than 1000	89	55

TABLE 2

How Many Times Have You Seriously Considered Dropping Out of School?

	REAP-UB %	Nat. UB %
Very often, 5 times or more	6	3
Often, 3 or 4 times	5	3
Twice	3	3
Once	10	10
Never	76	81

Tables 1 and 2 indicate that REAP-UB students attend larger schools and about twenty-five percent (25%) of them considered dropping out of school. The actual drop-out rate for this group, as reported in a later section, was four percent (4%).

TABLE 3

How Were Your Grades in School Last Year?

	REAP-UB %	Nat. UB %
Above Average	23	38
About Average	45	43
Below Average	31	18

The pattern in Table 3 reinforces the data, in the section on Academic Achievement, that REAP-UB students are somewhat more academically "risky" than typical UB students.

Family

TABLE 4

Family Size and Composition Compared to a National High School Sample

	REAP-UB %	Nat. UB %	U.S. High Schools %
Family size (counting the student)			
6-8	33	33	25
9 or more	10	20	5
Mean family size	5.4	5.96	4.5
Student lives with			
Both Mother & Father	42	51	82
Mother only	40	30	8

More UB students are part of large families (6 or more) than the U.S. High School sample.

Although a greater proportion of UB students are in families that are not intact the average family size is larger. These data are consistent with the larger family size of disadvantaged high school youth (5.24) reported in The College Discovery and Development Program of the City University of New York (January 1967).

Twice as many U.S. High School students live with both parents than REAP-UB students. The potentially greater maternal influence in the REAP-UB students family is indicated by five times as many of them live only with their mother than the typical high school student.

TABLE 5

What is Highest School Grade Completed by Your Mother, ...by Your Father

	REAP-UB %	Nat. UB %	U.S. High Schools %
Father's education			
12 years	21	19	23
More than 12 years	11	12	25
Total	32	31	58
Mother's education			
12 years	34	29	34
More than 12 years	12	14	23
Total	46	43	57

The difference between parents' educational levels is not as large at the twelfth grade level as it is beyond high school. Although both parents of UB students have a lower level of education than the typical high school student it is the father of UB students who has a much lower level.

TABLE 6

Full Time Employment of Fathers (or Stepfathers) and/or Mothers (or Stepmothers)

	REAP-UB %	Nat. UB %
Father works full time	47	56
Mother works full time	32	28

Fewer REAP-UB fathers work full time than typical UB students.

More REAP-UB mothers work full time than typical UB students.

TABLE 7

Parents and Best Friends Feelings About Students Participation in Summer UPWARD BOUND

	REAP-UB %	Nat. UB %
Parents		
Don't know	2	4
Unfavorable	3	4
Mixed feelings	5	5
Favorable	90	86
Best Friend		
Don't know	6	15
Unfavorable	11	13
Mixed feelings	19	15
Favorable	64	57

Parents and friends of REAP-UB students have favorable attitudes towards the Program with parents being much more positively enthusiastic than friends.

PRIMARY CHANGE MEASURES

Primary change measures of attitudes such as, (1) Self-esteem, (2) Self-responsibilities, and (3) Alienation in addition to measures of motivation for such goals as, (1) College, and (2) Achievement, are expected to change if a program is effective.

On each of the following measures three changes will be analyzed: (1) Summer Change which indicates the impact of the residential program on the Douglass Campus of Rutgers-The State University (2) Academic Year Change which indicates the impact of the Follow-up Program during the period from the end of the Summer Program through the Spring of the following year during which students are back in their local secondary schools, and (3) Total Change which covers the interim from June through spring of the following year. (See Figure 1)

Motivation for College

This measure was derived from a Story Completion Test which is an indirect measure of motivation for College (French 1958). Agreement between raters on this instrument was 94%.

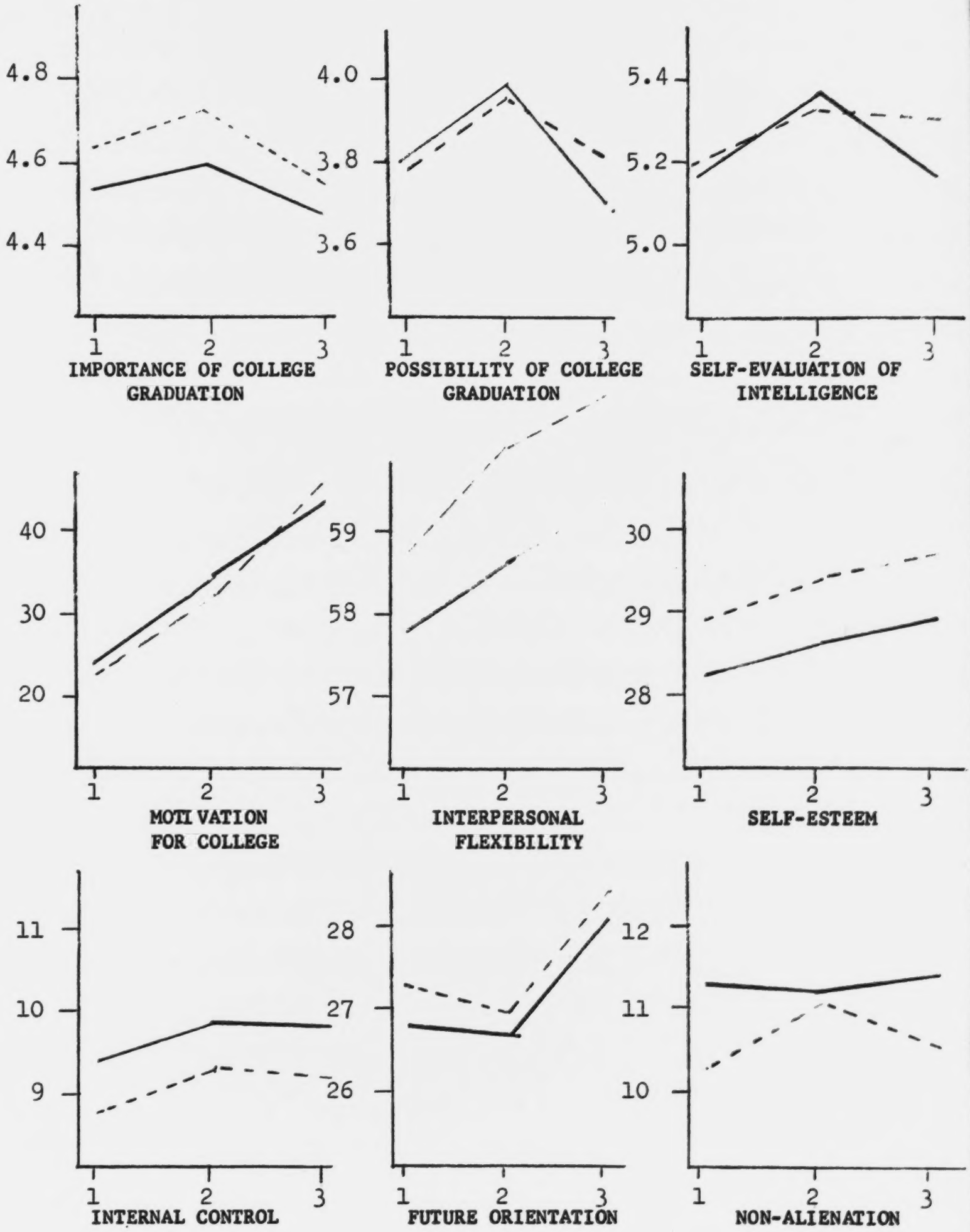
This index changed positively for all time periods (summer, academic year and total). The increase for the Rutgers-The State University UPWARD BOUND (REAP-UB) students was statistically significant ($< .01$) for each period.

Although motivation for college increased significantly in twenty of the twenty-one National Target UPWARD BOUND Programs (Nat. UB) during the summer period, this increase was consistently significant in all three time periods for only eleven of the twenty-one programs.

The reasons for eventual decrease in approximately half of the programs on this measure and several subsequent measures may be related to the influence of students' returning to their local high schools. This theme will be discussed further in a later section.

FIGURE 1

SCORES ON PRIMARY CHANGE MEASURES



Solid Line - National Target Programs
Broken Line - Rutgers-The State University UPWARD BOUND
1-2 = Summer Change; 2-3 = Academic Year Change; 1-3 = Total Change

Importance of College Graduation

This measure was included as a direct measure of motivation for college, while the preceding measure was an indirect index. Because this factor of how a student views himself in relation to his goal of college is a central purpose of UB it was measured both directly and indirectly.

The student rated the importance of college graduation on a five-point scale ranging from little importance (1 point) to extremely important (5 points).

This index for REAP-UB changed positively, though not significantly during the summer, decreased significantly ($< .05$) during the academic year period and remained a negative change for the total period although not significantly.

This local change reflected the change pattern in the National UPWARD BOUND programs except that the total change for National UPWARD BOUND was a significant decrease ($< .05$). Only one of the twenty-one target programs that showed a significant increase during the summer sustained it through the end of the academic year period, and this program had the second lowest index on the measure initially. Therefore, this pattern of decreasing scores may be due to a regression from initially very high scores. (The means for the target programs were 4.57 in June and 4.60 in August on a 5 point scale.)

Possibility of College

This measure was a direct measure of the likelihood of college graduation, rated in a similar way to the preceding measure of Importance of College.

This index for both REAP-UB and National UPWARD BOUND increased significantly ($<.01$) during the summer but decreased significantly ($<.01$) during the academic year. Although the changes for the summer and academic year were both significant in opposite directions the REAP-UB program mean at the end of academic year was slightly higher though not significantly than at the beginning of summer, whereas the National UPWARD BOUND total change showed a significant decrease ($<.01$).

Once again a pattern is beginning to emerge indicating the negative effects of returning to former homes and school on attitudes towards college. In over one half of the target programs the positive effects of the summer programs were more than outweighted by the negative effects of the academic year period. Why the negative effect did not operate as powerfully for REAP-UB and other programs showing no total significant negative change, may be due to the nature and activities of the academic year follow-up programs and, has been recommended for further study.

Self-Evaluation of Intelligence

This measure was obtained through the student's rating of "Myself" on the semantic differential evaluative index. The student rated himself on the "dumb-smart" scale.

The mean score for self-rated intelligence of REAP-UB students increased significantly ($<.01$) during the summer period, regresses slightly during the academic year period but still showed a positive change for the total period which was significant ($<.05$).

The pattern of the National UPWARD BOUND programs was that of the fifteen of twenty-one programs that showed a significant ($< .05$) positive summer change only one continued in a positive direction during the academic year. The negative change during the academic year was sufficiently powerful so that the change for the total period was significantly positive ($< .05$) for only half of the fifteen programs that made the initial gains.

Interpersonal Flexibility

This measure rated students' interpersonal understanding or their capacity to look at others with different perspectives.

Students responded on a four point agreement-disagreement scale to twenty-one statements, such as:

31) After you get to know people most of them fit into a type.

35) I like finding out how the ideas and feelings of others compared to mine no matter whether they agree or disagree.

48) I divide people into those I like and those I do not like.

32) The best way to understand a person is first to put yourself in his shoes to see how he looks at things.

High scores on interpersonal flexibility tended to represent agreement on above items #35 and #32 and disagreement with items #31 and #48.

This index for both REAP-UB and National UPWARD BOUND showed a positive change during both the summer and academic year periods. Although the academic year positive change for REAP-UB was not significant ($<.01$) the summer change was. The effects of the summer change was large enough to reflect a significant positive change for the total period ($<.01$). For the summer period the REAP-UB change was larger than for seventeen of the twenty-one National UPWARD BOUND Programs. These data however, must be viewed in the context that initially, during the pre-test at the beginning of the summer, the mean of this measure was also higher than seventeen of twenty-one programs. Thus, an initial selection-of-students factor may be operating. This hunch is supported by an analysis of National UPWARD BOUND Programs according to Conceptual Level which is based on Interpersonal Maturity scores on a Paragraph Completion test which is another dispositioned measure that will be discussed in a later section. The analysis classifies REAP-UB as a program with high Conceptual Level students.

Another question that was considered was, "Since REAP-UB is the second largest of the National UPWARD BOUND Programs (range of 20 to 168 students) does size increase the opportunities for interaction and growth in interpersonal flexibility?" An inspection of programs by size and growth on this measure indicates no causal relationship; that size alone cannot be said to account for increased interpersonal flexibility.

Self-Esteem

This measure represented a student's estimation of his own sense of adequacy.

Responses are scored on a four-point agreement-disagreement scale to such statements as:

4) I feel I do not have much to be proud of.

16) All in all, I am inclined to feel that I am a failure.

14) I feel that I'm a person of worth; at least on an equal plane with others.

21) On the whole, I am satisfied with myself.

High scores on this measure are represented by a tendency to agree with above items #14 and #21 and to disagree with items #4 and #16.

The mean of REAP-UB program was initially higher than the National UPWARD BOUND programs but the positive change pattern for both was similar in that positive changes were significant ($< .01$) for the summer and academic year periods and the total period as well.

This measure together with the already reported measures of Interpersonal Flexibility and Motivation for College showed continued positive growth during the academic year which was about as great as that which occurred during the summer period. This represented an opposite pattern to those measures which decreased during the academic year period when students returned to their schools.

Internal Control

This measure reflected a student's self responsibility or judgment of his control over the direction of his own experiences (Rotter, 1966).

The student was asked to discriminate between each of thirteen pairs of statements on the basis of which was closer to his personal beliefs, e.g.

5a) Becoming a success is a matter of hard work, luck has little or nothing to do with it.

5b) Getting a good job depends mainly on being in the right place at the right time.

7a) When I make plans, I am almost certain that I can make them work.

7b) It is not always wise to plan too far ahead because many things turn out to be a matter of good or bad fortune anyhow.

High scores for Internal Control are reflected by choices 5a and 7a in the above pairs of statements.

The pattern of the direction of change was similar for both REAP-UB and National UPWARD BOUND in that positive changes were significant ($<.01$) during the summer period and for the total period and a decrease was indicated, although not a significant one, for the academic year period.

REAP-UB program showed the third greatest positive change of the twenty-one target National UPWARD BOUND programs during the summer during which eighteen of the twenty-one programs changed in a positive direction, although the change was significant for only half of these. Approximately half of the 18 of 21 programs showed a decrease during the academic year period. Thus, the effects of students returning to their original high schools and homes seems not to have an important enhancing nor depreciating effect on this measure, that is the end-of-summer level was maintained for the academic year period with a negligible decrease.

Future Orientation

The degree to which a student accepted his fate and did not try to change it, or to delay immediate rewards for long-range goals was measured by items on this scale (Strodtbeck, 1958). Students responded to the following type statements on a four-point agree-disagree scale.

7) The secret of happiness is not expecting too much out of life and being content with what comes your way.

12) People should live for today and let tomorrow take care of itself.

The pattern for both REAP-UB and National UPWARD BOUND was similar. Although the means for all three time periods indicate students tend to disagree with the above "fatalistic-view" statements, they disagreed less at the end of the summer period and more over the academic year period ($<.01$). REAP-UB students, then, reflect the opinion that they are less inclined to postpone immediate gratification for future rewards during the residential summer program than they are in the setting of their own secondary school.

One of the interpretations that these data might suggest relate to achievement motivation, that REAP-UB students during the summer felt an urgency to achieve "now." This feeling may be related to a student's desire to pass a biology course he previously failed without considering the relation of the course to his future plans or even how the content of the course fits with "modern" biology programs or this feeling may be related to his summer teacher's attitude of encouraging him to express himself

about immediate problems and then responding to these clues. To what extent the immediacy of gratification is related to dispositional student factors or to program climate is not now known.

Alienation

This measure was the state of anomy in which a student perceives himself. The student also characterized the attitudes of persons towards himself and others insofar as caring, trusting and depending on them. High scores on this measure may be said to reflect a lack of faith in people and the structure of society (Srole, 1956; Rosenberg, 1965).

The following types of statements were coded for agreement on a four-point scale.

1. Most public officials are not really interested in the problems of the average man.
20. If you don't watch yourself, people will take advantage of you.

"In contrast to all other measures, alienation as an index of program effectiveness, was expected to decrease" (Hunt, 1966 p. 9).

The decrease for REAP-UB during the summer period was the second largest of the twenty-one Target UPWARD BOUND programs. Whereas no significant changes were noted for the National UPWARD BOUND programs in any of the time periods, the decrease for REAP-UB was significant ($<.01$) for the summer and total period although not for the academic year period.

(In Figure 1 Alienation is scored as Non-Alienation. Therefore, the scale interpretation should be inverted with an increase being associated with program effectiveness.)

Summary for REAP-UB

At the end of the summer of the nine primary change measures, eight showed a significant increase, six beyond .01 α and two beyond .05 α. The exception was Future Orientation.

During the academic year period of the eight measures that increased during the summer, five decreased: (1) Importance of College Graduation (2) Possibility of College Graduation (3) Self-Evaluation of Intelligence (4) Internal Control and (5) Non-Alienation. The decrease was significant ($<.01$) for only measures (1) and (2), and only (1) showed a decrease below the original beginning of the summer level.

PROGRAM CLIMATE

A Program Climate Questionnaire (PCQ) was administered to students during the last week of the summer program. Students were asked to state what they believed to be true about certain characteristics of their program.

Arbitrary standards are not available nor may be appropriate for judging the correct amount of a climate such as flexibility, desirable in a program. Flexibility depends upon, among other factors, the purposes of the individual program and the need of the students for a flexible-structured program. Therefore, the rating of the REAP-UB program on each scale by its students will be compared to twenty-one target National UPWARD BOUND program ratings by their own students.

Flexibility

High ratings in this category indicated that students felt free to bring up gripes in student meeting and had a chance to tell staff their impressions of the academic program. Not only were students listened to but their recommendations often resulted in implementation in program changes. Students felt free to ask "why" about activities and the rationale of a program.

Students tended to rate a program low in flexibility if they complained and nothing was done or if they have little opportunity to set their own regulations.

The REAP-UB program as compared to other National UPWARD BOUND programs was rated as markedly flexible ($< .02$).

Autonomy

On an autonomy-control scale students rated programs high if they, (1) had a chance to select their own leaders, (2) were treated more as adults than as "kids," (3) were encouraged to try out things their own way and (4) were encouraged to offer suggestions and advice about activities and procedures.

Low autonomy programs were characterized by such descriptions as; "army camps," "strict," staff as "bosses," lots of "checking up" on students, and waiting to be called on before speaking in class.

REAP-UB received the highest rating by its students, greater than any of the other twenty-one Target National UPWARD BOUND programs, as rated by their own students, (significant $< .001$).

Sensitivity to Individuation

Students rated a program high on this measure when staff members tried hard to find out what each student could do well, when students could tailor classes and subjects to their own needs and interests and when students were treated as individuals.

Low sensitivity reflected; (1) a lack of emphasis on developing students' personal values or a philosophy of life, (2) individuality blurred into one large group, and (3) individual interests and differences subjugated to staff expectancies. When everyone was expected to do similar things was characteristic of low sensitivity programs.

The REAP-UB program as compared to other National UPWARD BOUND programs was judged to be extremely sensitive to individuals ($<.001$) REAP-UB program ranked first of twenty-one programs on this measure. More than any other measure on the PCQ, Sensitivity to Individuation is rated by REAP-UB students as the outstanding characteristic of their UB program.

Acceptance and Warmth

Teachers, teacher assistants and other staff members were rated high on this measure if they,

1. Were easy to talk to vs. being hard and cold.
2. Spent a lot of time out of class chatting with students vs. not having much to do with students and not knowing their names.
3. Were available for whatever students wanted to discuss vs. treating student as if they were "in the way."
4. Accepted students as having individual integrity vs. having to call teacher "Mr." or "Sir."

Although the REAP-UB program ranked fifth highest of the twenty-one National UPWARD BOUND programs on this measure the difference ($>$ .07) was not significant beyond $<$ .01 α .

Student Evaluation

Students were asked to state their opinion in response to nine questions regarding the general nature of their program. The questions referred to the quality of teacher aids; the strictness of discipline; teaching effectiveness of teachers, and general helpfulness of their program.

Although the mean for REAP-UB was higher than the typical Target Program it was not significant ($>$.09) (see Table 8).

In noting student preferences for activities in their program that were most helpful in achieving their goals, students discovered that the informal aspects of their program such as field trips, bull sessions with other students or staff, had greater benefits than they had originally anticipated.

Promotion of Positive Self-Concept

Supportiveness for this measure was identified when staff members showed that they were proud when students did a good job, paid more attention to students' good points rather than to their faults and went out of their way to make students feel that they really counted and had worthwhile ideas.

Lack of supportiveness by the staff was characterized by a more than normal amount of censoring, criticizing, nagging, disapproving and impatience.

Of the twenty-one programs REAP-UB ranked third. The notable degree of Promotion of Positive Self-Concept as compared to other programs was significant ($<.001$).

Staff Harmony

Students rated how well they thought teachers "got along" with each other and the teaching assistants and the extent to which the staff worked together as a team.

The REAP-UB program was ranked at the median of the twenty-one programs. Differences from the mean using a two tailed test showed no significant differences between staff harmony at REAP-UB and National UPWARD BOUND programs. In comparison to the other measures on the PCQ Staff Harmony was ranked last by REAP-UB students.

Group Harmony

The degree of harmony or conflict among the students in their program was rated.

Harmony was indicated by such behaviors as, little rivalry and conflict between different racial and national groups and students pitching in to help each other out.

Conflict was seen as students behaving as "hoods," unfriendly, bickering, quarreling and kids from different high schools not getting along very well with each other.

The Group Harmony in the REAP-UB program was strikingly above average and was significantly different ($<.002$) from the typical National UPWARD BOUND program (see Table 8).

Summary

Students rated their program's climate in eight areas on a Program Climate Questionnaire (PCQ). Table 8 presents the eight areas ranked in order by the REAP-UB students reflecting their estimation of the strength of their programs. The rank of REAP-UB in relation to the other twenty target programs, plus whether any differences exist between it and the typical target program are also noted.

TABLE 8

REAP-UPWARD BOUND Program Climate Characteristics

Measure (In order of rating by REAP-UB students)	Rank in Relation to 21 Target Programs	Positive Difference in Relation to Typical Target Programs
1. Individuation	1	$< .001$
2. Autonomy	1	$< .001$
3. Supportiveness (self-concept)	3	$< .001$
4. Group Harmony	6	$< .002$
5. Flexibility	7	$< .02$
6. Warmth	5	Not significant
7. Student Evaluation	9	Not significant
8. Staff Harmony	10	Not significant

ACADEMIC ACHIEVEMENT

Grade Point Average

Each UB student was matched in his high school with a student of the same sex, age, and equal or nearly equal grade point average (GPA). The teacher or guidance counselor making the selection was urged to identify a student who was as "similar as possible" to the UB student.

The GPA were recorded for both the control and UB groups in June and the following February. Table 9 shows how the changes in GPA of REAP-UB and control students compare to the mean averages of the twenty target UPWARD BOUND programs that reported GPA's.

As the table indicates not only is the GPA trend for the twenty Target Programs downward, but the decrease for UB students is greater than for the control students.

In contrast, for REAP-UB, the differences were significantly positive, and surpassed by only one of the other nineteen programs.

The National pattern of reversion to old patterns of academic performance was expected as students returned to former homes and schools.

The REAP-UB pattern of continued academic growth was certainly atypical and unexpected based upon previous estimates of the effects of similar programs nationally.

In terms of the level of "risk" of the REAP-UB student it may be interesting to note, in Table 9, that their June GPA of 1.88 is much lower than the GPA of 2.19 for the Twenty Programs. The GPA of REAP-UB ranks fifteenth of the twenty programs. By this criterion REAP-UB students represents in a sense academically "high risk" students.

These students further increased their "risk" by enrolling in a greater number of academic courses in their high schools after the summer period, than their counterparts in the control group.

TABLE 9

COMPARISON OF GPA FOR UPWARD BOUND AND CONTROL STUDENTS IN TWENTY TARGET PROGRAMS AND REAP

N	Program	UPWARD BOUND GPA			Matched Control Student GPA			Difference Between Change Scores
	Males Only	June	Feb.	Change	June	Feb.	Change	
677	Twenty Target Prog.	2.02	1.93	-.09	1.97	1.87	-.10	+.01
58	REAP-UPWARD BOUND	1.64	1.84	+.20	1.67	1.51	-.16	+.36
	Females Only							
626	Twenty Target Prog.	2.37	2.32	-.05	2.36	2.34	-.02	-.03
52	REAP-UPWARD BOUND	2.16	2.32	+.16	2.10	2.15	+.05	+.11
	Total							
1302	Twenty Target Prog.	2.19	2.11	-.08	2.16	2.10	-.06	-.02
110	REAP-UPWARD BOUND	1.88	2.07	+.19	1.87	1.82	-.05	+.24

That over seventy percent (70%) of these students who graduated from the REAP-UB program went on to post-secondary education seems clearly to support part of the primary objective of UB, "to generate the skills and motivation for inadequately prepared secondary school students from low income backgrounds for success in college."

How successfully these students fared in college is currently being studied and will be assessed in future reports.

Drop-Out Rate

One of the effects of National UPWARD BOUND programs has been to reduce the indicidence of UB students dropping out of school.

The data for the drop-out rate of the control students matched with REAP-UB students are incomplete because some high schools remove the records from their files for these students. However, the four percent (4%) drop-out rate of REAP-UB students is estimated to be much less than conservative rates of drop-out for the communities that REAP-UB serves such as Newark, New Brunswick, Camden, etc.

Post-Secondary School Educational Plans

Table 10 compares the educational plans of REAP-UB students to norms based on a large national sample of high school seniors (Talent 1964).

The sum of the responses of C, D, E, and F indicate that REAP-UB students state that they are much more likely to continue their education beyond secondary school than the national sample.

TABLE 10

Post-Secondary School Educational Plans

		Nat'l.(N=12,028)		REAP-UB(N=119)	
A.	Won't finish high school	1%		0%	
B.	Graduate from high school only	26		8	
C.	Vocational, business school or junior college	21		17	
D.	Some college	10	73	8	91
E.	College graduation	27		37	
F.	Advanced college degree	15		29	
G.	No answer	0		3	

Relation of Measures to Purposes

How the previously assessed measures are related to statements of program characteristics in the Office of Economic Opportunity, Guidelines for UPWARD BOUND (OEO-UB) and the REAP-UPWARD BOUND Proposal, is compared in the following analysis.

OEO - UB Guidelines	REAP-UB Purposes	Assessment Section Reference
I. Staff members should be willing to involve students directly in decisions about his own education.	H. To be able to explore alternative roles of satisfaction by using rewards rather than punishment and lessening fear and self-doubts that block consideration of alternatives.	Possibility of college Importance of college Self-responsibility
	I. To be able to relate learning in academic subjects to personal goals.	
	K. To be able to adapt to college environment of classes and campus.	

OEO - UB Guidelines	REAP-UB Purposes	Assessment Section Reference
II. Provisions for close and substantial individual student teacher contact.	D. Learn behaviors and skills that will encourage teachers to reinforce student efforts to improve performance regardless of level at which they start.	Alienation Warmth Individuation
	M. To improve youngsters interaction with teachers so that youngsters behaviors elicit praise and encouragement when they and their teachers see each other in a more favorable light.	
	O. To be able to plan with other students and teachers and evaluate and discuss problems of mutual concerns.	
	K. See K above.	
III. Willingness to engage the student as partners in learning.	B. To prize autonomy by the successful voluntary solving of problems.	Warmth Flexibility Autonomy Individuation
	J. To be able to maintain own egos despite learning habits that others wish them to learn.	
	H. See H above.	
	O. " O "	
IV. For educational reasons each group of students should be diverse with regard to background and race and that programs with genuine respect for this diversity are especially effective.	C. To perceive oneself as a unique individual by testing out attitudes and stereotypes towards other students.	Interpersonal flexibility Autonomy Group harmony
	K. See K above.	
	O. " O "	

OEO - UB Guidelines	REAP-UB Purposes	Assessment Section Reference
V. Develop non-academic abilities of organizing, persuading and cooperating.	E. Learning skills that favor academic achievement.	Individuation Autonomy
	L. Learn styles of thinking that are creative rather than restrictive.	
	N. Improve study habits and skills.	
	O. See O above	
VI. A major feature of success is a student's sense that somebody personally cares about him.	J. " J "	Individuation Warmth Alienation
	M. " M "	
	O. " O "	
VII. That a student with normal functional intelligence can with special encouragement and increased motivation succeed in future schooling.	F. To be able to plan for future and delay immediate gratification of impulses.	Future orientation Possibility of college Self-evaluation of intelligence Academic achievement Motivation for college Self-concept
	A. To know many career alternatives available.	
	E. See E above.	
	I. " I "	
	J. " J "	
	K. " K "	
VIII. Students need a sharply improved self-image.	G. Develop feelings of self-worth.	Self-esteem Self-evaluation of intelligence Self-concept
	J. See J above.	
	C. " C "	

Discussion of Program Effectiveness

"An observer of different UB programs is quickly struck by the variety in approach among programs,... the issue is not 'Which program is best?' but rather 'Which programs are more effective with certain kinds of students?'" (Hunt, Hardt, Nov. 1966, p.5)

Two dimensions were used to determine the degree of matching of programs and students. One was the type of program classified as either structured or flexible. The other dimension was the predominant type of student in each program classified as low or high conceptual level.

Program structure was determined by the PCQ ratings on the Flexibility and Autonomy scales, because these two scales showed a high relationship not only to each other on the PCQ but to site visitor ratings (see Appendix A).

An index of Conceptual Level (CL) or interpersonal maturity was obtained for each student on a Paragraph Completion Test (Halverson 1964). Programs were independently classified as having high CL or low CL students.

> Low CL students because of their relatively concrete orientation should function best and be more likely to change when the program approach is clearly structured, well organized, and the students know what to expect. By contrast high CL students who are more inquiring and more independent, should function best and be more likely to change in a reflective environment which is more flexibly attuned to their independent orientation (Hunt and Hardt, 1966, p.2).

Positive growth on the Primary change measures were analyzed according to program structure alone, student CL alone, and the match between program structure and CL. The results of the

analysis were that (1) students liked matched rather than mismatched programs and (2) the greatest positive changes in attitudes on the Primary change measures were much more likely to occur in matched than in mismatched programs.

In Table 11 REAP-UB is one of the five Flexible-High CL, matched programs.

TABLE 11

Classification of Program Matching by Program Structure and Student Conceptual Level

Student CL Rating	Flexibility Autonomy Rating	Classification of Program	Number of Programs in this Category
Low	Low	Structured-Low CL MATCHED	4
High	High	Flexible-High CL MATCHED	5
High	Low	Structured-High CL MIS-MATCHED	7
Low	High	Flexible-Low CL MIS-MATCHED	5

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November 13, 1967

Mr. Laurence Hopp
Project Director, UPWARD BOUND
Rutgers, the State University
New Brunswick, New Jersey

Dear Mr. Hopp:

Your program was visited this summer by Dr. William Goldsmith of Brandeis University. You may be interested in some of his impressions as they were transmitted to us in his site visit report.

Dr. Goldsmith described your program as imaginative, solidly academic, and successfully inspiring all, or nearly all of its participants to seek college admission. Your staff was strong, and particular commendation was given to the work of Dr. Solomon Gordon. Relationships with the sponsoring institutions were healthy, and your efforts to find places and funds for these students in Rutgers, Douglass, and elsewhere was applauded. In short he described Rutgers' UPWARD BOUND as "the best program that sheer money can buy."

My own impressions of your program, were, as I have told you, very favorable. The intimate knowledge of each youngster which was shared by you and your staff, and the systematic efforts which were being made to cope with individual problems through more efficient staff utilization were noteworthy. I am sure that as your program continues, you will be able to solve some of the problems which have beset you, and will succeed in developing an academic curriculum which exposes the students to the exciting range and depth of intellectual experiences that a good liberal arts college promises.

At the present time, we do not have a report from the winter site visitor. When it arrives, I will communicate its contents to you.

May continued success in UPWARD BOUND be yours.

Sincerely yours,

William J. Murphy
Executive Assistant

WJM:llf

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Dear Colleague:

We would like to share with you the enclosed report, "Assessment of UPWARD BOUND, Rutgers Educational Action Programs," (REAP-UB).

The assessment contains the following findings:

A. Our students: (1) come from large high schools, (2) drop-out of school at a much lower rate than they previously considered, and (3) are academically "riskier" than typical students in UB.

B. Our students families: (1) are larger than the average U.S. family, (2) are less intact (mother and father both living with student), (3) have a greater maternal influence, (4) have a lower than high school educational level than typical U.S. families, and (5) are highly enthusiastic towards their child's participation in REAP-UB.

C. The motivations and attitudes of the students, during the summer, increased significantly in: (1) motivation for college, (2) importance of college graduation, (3) possibility of attending college, (4) self-evaluation of intelligence, (5) interpersonal understanding and flexibility, (6) estimation of self-esteem and sense of adequacy, (7) internal control or self-responsibility, and (8) perception of alienation from society. No significant positive change was found for the measure of (9) future orientation or the degree to which a student accepts, delays or gratifies his goals.

During the academic year period following the summer program a significant decrease was noted for measures (2) and (3).

D. The outstanding characteristics of the REAP-UB program as rated by the students were (in rank order): (1) sensitivity to individuals, (2) encouragement of student autonomy, (3) supportiveness for promotion of self-concept, (4) group harmony among students, and (5) flexibility in dealing with student-program problems.

Program characteristics which did not differ significantly from other UB programs rated were, (6) acceptance and warmth, (7) student general evaluation of the program, and (8) staff harmony.

E. The academic achievement of REAP-UB students in their high schools during the semester following their summer experience was significantly positive and was markedly greater than the national pattern of UB programs.

F. REAP-UB was classified as one of the nine "matched programs," that is, the program structure was appropriate and effective for the kinds of students in the program.

We are grateful for the help provided by the many organizations and persons referred to in the appendices and welcome your continued assistance and inquiries.

Cordially,

Melvin Lang

Melvin Lang, Director
Research and Evaluation

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